

Remarks/ArgumentsA. Status of Claims

Claims 1-14 have been canceled. New Claims 15-28 have been added. As a result, Claims 15-28 currently are pending and are under consideration in the above-referenced application.

B. Claim Rejections under 35 U.S.C. Section 112

The rejection of Claims 13 and 14 under 35 U.S.C. Section 112, second paragraph has been rendered moot by cancellation of these claims. Applicant notes that none of the new Claims 15-28 include the subject matter of canceled Claims 13 and 14 that formed the basis of the Examiner's rejection of said claims.

C. Claim Rejections Under 35 U.S.C. Section 102

The rejection of claims 1, 3, 5-9, 11, 13 14 and under 35 U.S.C. Section 102(b) as being anticipated by GB 1404291 has been rendered moot by cancellation of said claims. Applicant further notes that new Claims 15-28 all include the limitation that the reaction medium contain about zero weight percent volatile organic compounds. This limitation distinguishes Applicant's invention from the disclosure of GB 1404291. In Example 5 of GB 1404291, a reaction product ("Sample D") obtained by reacting maleic anhydride with cis-1,4-polyisoprene rubber in the presence of benzoyl peroxide (see Example 1) was subjected to hydrolysis after forming a solution of Sample D in benzene. The hydrolysis thus was carried out in the presence of a significant quantity of a volatile organic compound (benzene). Nowhere does the reference teach or suggest that such

hydrolysis could be effected in a reaction medium containing about zero weight percent volatile organic compounds. Further, while Applicant's new claims all require the use of a liquid elastomer having at least one dicarboxylic acid anhydride group per molecule, the reference is silent as to the physical form of the cis-1,4-polyisoprene rubber employed. As GB 1404291 does not disclose each and every element of Applicant's invention, as reflected in the amended claims, it does not anticipate the claims now pending in the application.

The rejection of Claims 1-12 and 14 under 35 U.S.C. Section 102(b) as anticipated by GB 1495457 has been rendered moot by cancellation of these claims. Applicant notes that new Claims 15-28 require that the reaction medium in which hydrolysis is carried out must contain about zero weight percent volatile organic compounds. In the Office Action, the Examiner specifically points out the disclosures of Examples 2-4 of GB 1495457. However, in each of these examples, a significant amount of volatile organic compounds was present in the reaction medium. By Applicant's calculation, the reaction medium of Example 2 contained about 19 weight % volatile organic compounds (xylene + 4-methyl-pentan-2-ol) while the reaction media of Examples 3 and 4 contained about 13 weight % volatile organic compounds (xylene + n-butanol). The reference does not teach or suggest that it might be possible to carry out the hydrolysis in the substantial absence of volatile organic compounds. Thus, it is clear that Applicant's claimed invention is not anticipated by GB 1495457.

The rejection of Claims 1, 6-8, 11, 12 and 14 under 35 U.S.C. Section 102(b) as being anticipated by Berrier et al. (US 5,407,784) has been rendered moot by the cancellation of these claims. As mentioned previously, Applicant's invention as reflected

in the amended claims is directed towards a method involving hydrolysis of a liquid elastomer having at least one dicarboxylic acid anhydride group per molecule in a reaction medium that contains about zero weight percent volatile organic compounds. Such a method is not taught in the Berrier et al. reference. Rather, the reference discloses (Example 1) that hydrolysis of a maleated polybutadiene is carried out in the presence of a large quantity of a volatile organic compound (toluene). Nowhere does the reference teach or suggest that such hydrolysis could be effected in the substantial absence of the volatile organic compound. Nor does it teach or suggest utilizing a liquid elastomer having at least one dicarboxylic acid anhydride group per molecule, as required by all of Applicant's pending claims.

D. Claim Rejections under 35 U.S.C. Section 103(a)

The rejection of Claim 10 under 35 U.S.C. Section 103(a) as being unpatentable over GB 1404291 has been rendered moot by cancellation of said claim. However, Applicant wishes to point out that GB 1404291 only teaches (page 3, column 1, lines 1-7) that a modified cis-1,4-polyisoprene rubber "having bound maleic anhydride" may be used in combination with other rubbers. The reference fails to disclose or suggest combining a rubber having free carboxylic acid groups rather than anhydride groups with other rubbers. The subject matter of Applicant's new Claim 25 thus would not have been obvious to a worker of ordinary skill in the art from the disclosure of GB 1404291.

Respectfully submitted,

  
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